

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum
Internationales Büro



(43) Internationales Veröffentlichungsdatum
17. Januar 2002 (17.01.2002)

PCT

(10) Internationale Veröffentlichungsnummer
WO 02/03831 A1

(51) Internationale Patentklassifikation: A46B 3/22

(21) Internationales Aktenzeichen: PCT/EP01/07439

(22) Internationales Anmeldedatum:
28. Juni 2001 (28.06.2001)

(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität:
100 33 256.0 10. Juli 2000 (10.07.2000) DE

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(81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT,
AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU,
CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GB, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW),
eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), europäisches Patent (AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR),
OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML,
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Abkürzungen wird auf die Erklärungen ("Guidance Notes on
Codes and Abbreviations") am Anfang jeder regulären Ausgabe
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(54) Title: METHOD AND DEVICE FOR PRODUCING BRISTLE PRODUCTS AND BRISTLE PRODUCTS

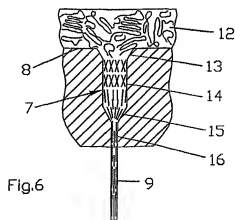
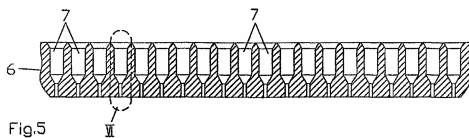
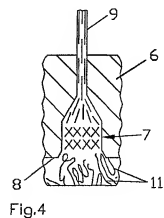
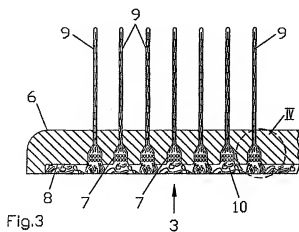
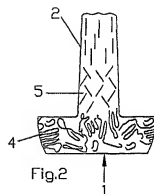
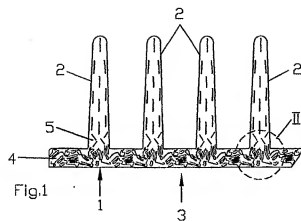
(54) Bezeichnung: VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON BORSTENWAREN SOWIE BORSTEN-
WARE

(57) Abstract: The invention relates to bristle products comprising at least one support with bristles consisting of a pourable plastic arranged thereon. Said products are manufactured in the following way: the support is provided with perforations, which act as spinnerets and are attached to bristle-forming channels and a plastic melt for the bristles is extruded into the channels by injection moulding from at least one side of the support, (the supply side of the melt), through the perforations, to form the bristles. The perforations have a smallest width of ≤ 3 mm along at least one section of their length and the ratio of said width to the flow path of the melt, said path being constituted by the height of the perforations and the length of the channels, is $\leq 1:5$. The invention also relates to devices for carrying out the method and to bristle products manufactured according to said method.

(57) Zusammenfassung: Borstenwaren mit wenigstens einem Träger und daran angeordneten Borsten aus einem gießfähigen Kunststoff werden in der Weise hergestellt, dass der Träger mit nach Art von Spinndüsen wirkenden Durchbrüchen, an die sich borstenformende Kanäle anschließen, versehen wird und eine Kunststoffschmelze für die Borsten durch Spritzgießen von mindestens einer Seite des Trägers - der Zuführseite der Schmelze - durch die Durchbrüche hindurch unter Bildung der Borsten in die Kanäle gespritzt wird, wobei die Durchbrüche auf wenigstens einem Teil ihrer Länge eine kleinste Weite von ≤ 3 mm aufweisen und das Verhältnis dieser Weite zu dem sich aus der Höhe der Durchbrüche und der Länge der Kanäle ergebenden Fließweg der Schmelze $\leq 1:5$ gewählt wird. Ferner sind Vorrichtungen zur Durchführung des Verfahrens und nach dem Verfahren hergestellte Borstenwaren beschrieben.

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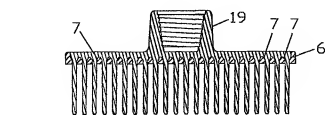
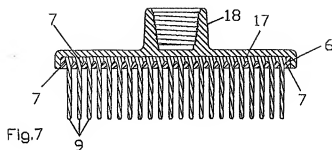


Fig. 8

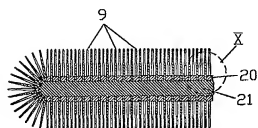


Fig. 9

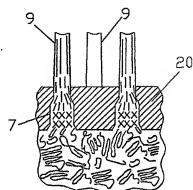


Fig. 10

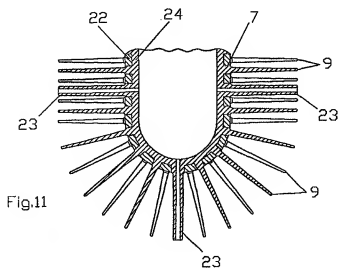


Fig. 11

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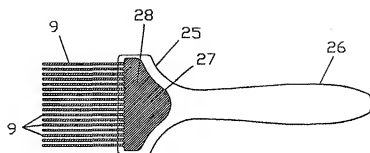


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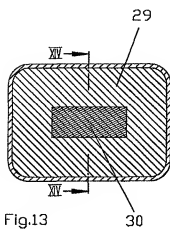


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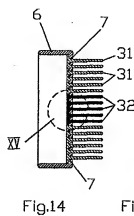


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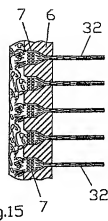


Fig.15

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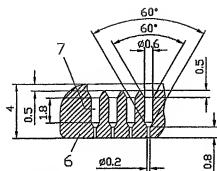


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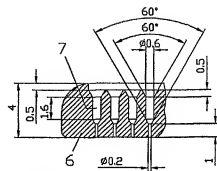


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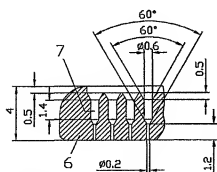


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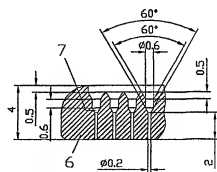


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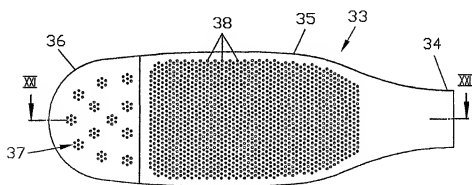


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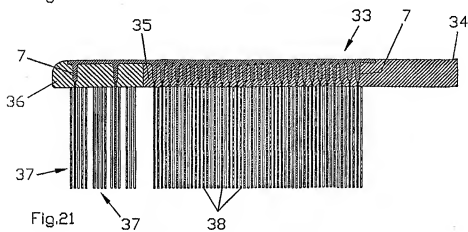


Fig.21

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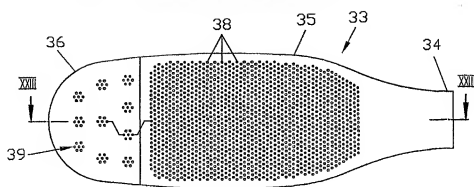


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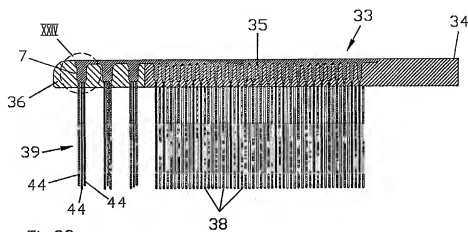


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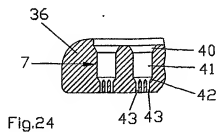


Fig. 24

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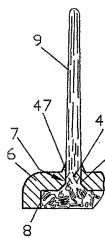


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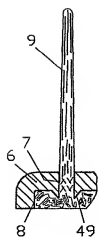


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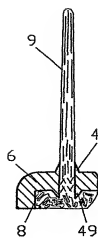


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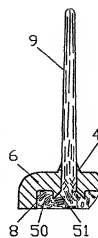


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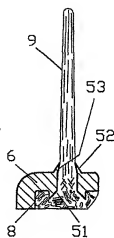


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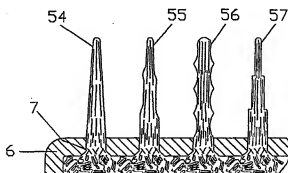


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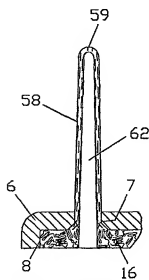


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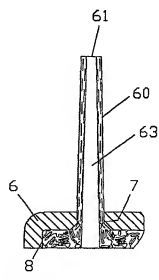


Fig.32

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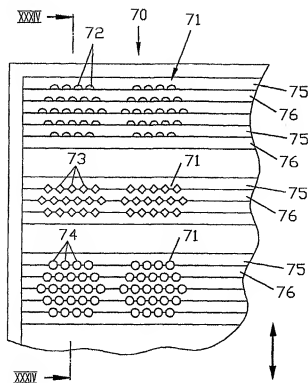


Fig.33

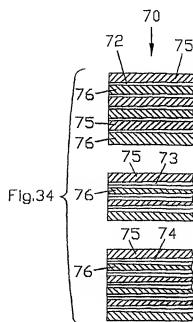


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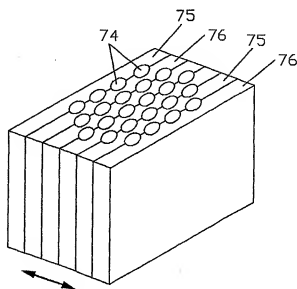


Fig.35

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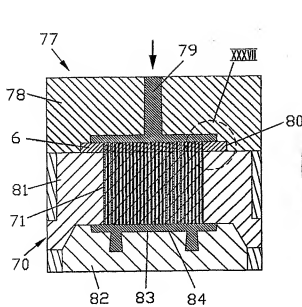


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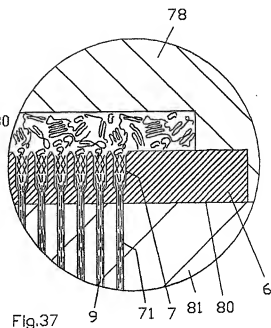


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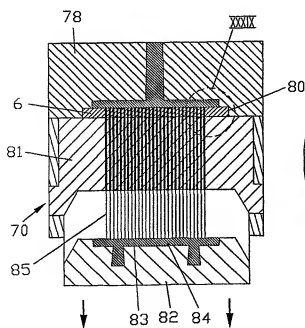


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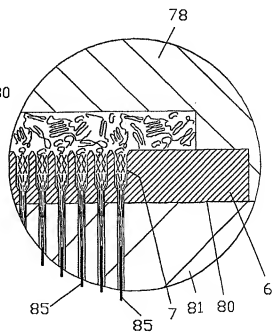


Fig. 39

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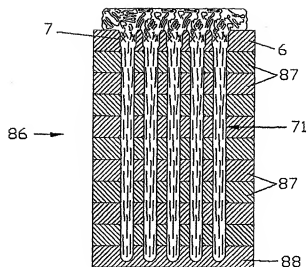


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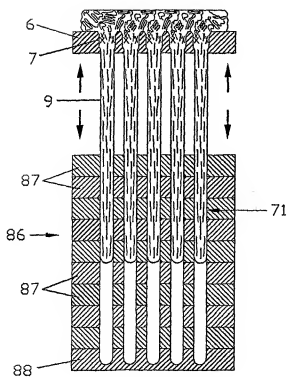


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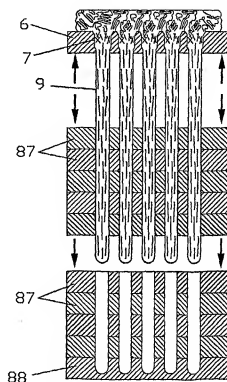


Fig. 42

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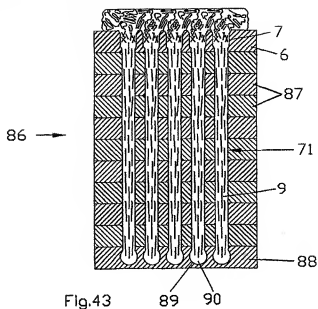


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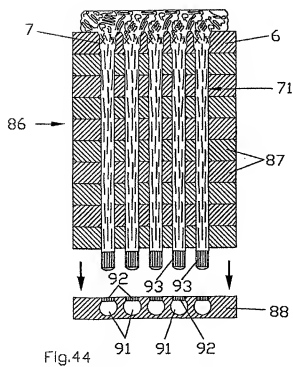


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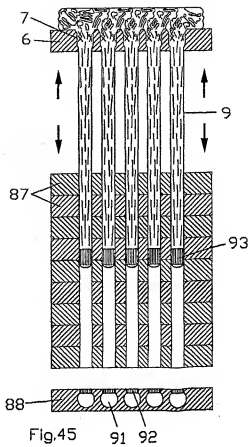
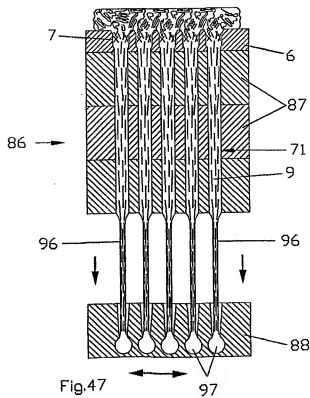
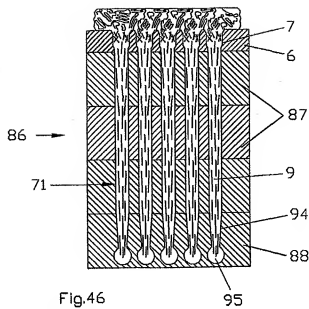
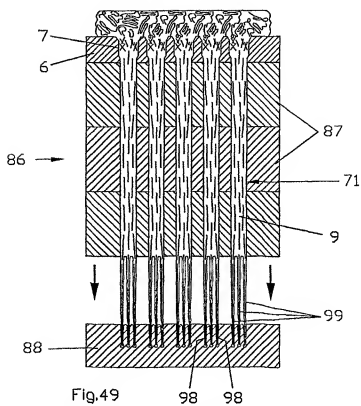
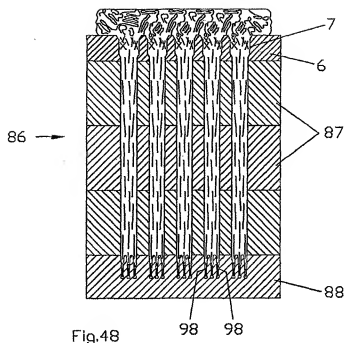


Fig. 45

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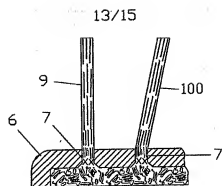


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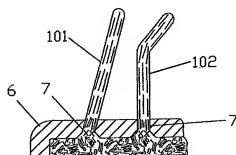


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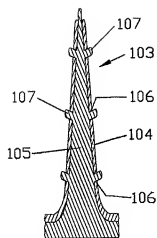


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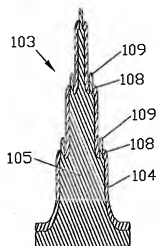


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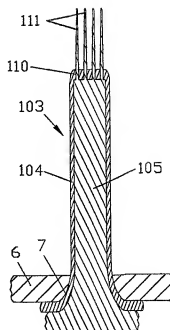
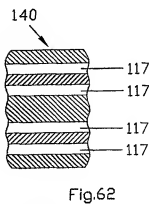
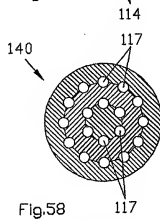
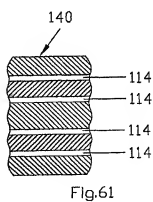
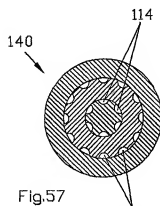
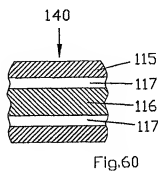
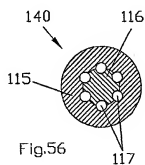
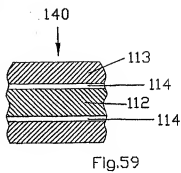
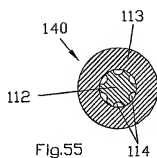


Fig.54

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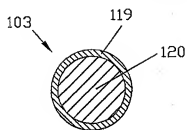


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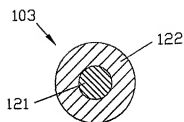


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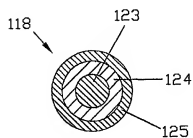


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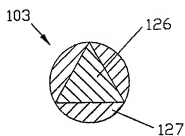


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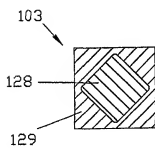


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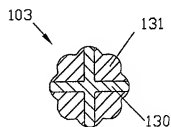


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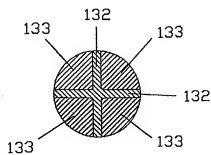


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